



INVESTOR IN PEOPLE

Application No: GB 0203950.1
Claims searched: 1-12

Examiner: Philip Ord
Date of search: 25 July 2002

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.T): None

Int Cl (Ed.7): G05D; B64G.

Other: Online: WPI, EPODOC, JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
A	GB 2 268 138 A ROLLS-ROYCE See p13 line 27 to p14 line 8 noting reference to a control system which calculates the optimum manner in which stability can be achieved.	-
A	US 5,335,179 GENERAL ELECTRIC See claim 2 noting reference to a method of controlling a spacecraft attitude in which constraints, such as the maximum thrust capability of thrusters, are considered during thruster control calculations.	-

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

INTERNATIONAL SEARCH REPORT

International Application No

PC 03/00708

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B64G1/26 G05D1/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B64G G05D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JIN H P ET AL: "An optimal thruster configuration design and evaluation for Quick STEP" CONTROL ENGINEERING PRACTICE, PERGAMON PRESS, OXFORD, GB, vol. 3, no. 8, 1995, pages 1113-1118, XP002204893 ISSN: 0967-0661 cited in the application page 1114, column 1, paragraph 3 -page 1115, column 2, paragraph 1 ----	1-12
A	WO 98 49058 A (AUF DER HEIDE KOLJA ;DAIMLER BENZ AG (DE); SCHUETTE ANDREAS (DE)) 5 November 1998 (1998-11-05) abstract page 4, line 19 - line 35 ----- -/--	1-12

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

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- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

19 May 2003

Date of mailing of the international search report

23/05/2003

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

PCT 03/00708

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>WIKTOR P J: "MINIMUM CONTROL AUTHORITY PLOT: A TOOL FOR DESIGNING THRUSTER SYSTEMS"</p> <p>JOURNAL OF GUIDANCE AND CONTROL AND DYNAMICS, AIAA. NEW YORK, US, vol. 17, no. 5, 1 September 1994 (1994-09-01), pages 998-1006, XP000493390</p> <p>ISSN: 0731-5090</p> <p>page 999, column 2, last paragraph -page 1000, column 1, paragraph 1</p> <p>page 1001, column 2, paragraph 3 -page 1002, column 1, paragraph 3</p> <p>---</p>	1-12
A	<p>US 3 917 929 A (REINHART TOM R)</p> <p>4 November 1975 (1975-11-04)</p> <p>abstract</p> <p>column 1, line 1 -column 2, last line</p> <p>---</p>	1-12
A	<p>KUHNS M D ET AL: "Singularity Avoidance Control Laws for a Multiple CMG Spacecraft Attitude Control System"</p> <p>PROCEEDINGS OF THE AMERICAN CONTROL CONFERENCE,</p> <p>vol. 3, 29 June 1994 (1994-06-29), pages 2892-2893, XP010304044</p> <p>the whole document</p> <p>---</p>	1-12
A	<p>US 6 141 606 A (RECKDAHL KEITH J)</p> <p>31 October 2000 (2000-10-31)</p> <p>the whole document</p> <p>---</p>	1-12
A	<p>YAMAMOTO I ET AL: "An application of a position keeping control system to floating offshore platform"</p> <p>PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON INDUSTRIAL ELECTRONICS, CONTROL AND INSTRUMENTATION (IECON). KOBE, OCT. 28 - NOV. 1, 1991, NEW YORK, IEEE, US,</p> <p>vol. 1 CONF. 17,</p> <p>28 October 1991 (1991-10-28), pages 1867-1872, XP010041997</p> <p>ISBN: 0-87942-688-8</p> <p>page 1868, column 1, paragraph 2 -page 1869, column 1, paragraph 1; figure 2.3</p> <p>-----</p>	1-12



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
D,A	JIN H P, WIKTOR P, DEBRA D B: "An optimal thruster configuration design and evaluation for quick step" CONTROL ENGINEERING PRACTICE, vol. 3, no. 8, 1995, pages 1113-1118, XP002204893 GB * abstract * * page 1114, column 1, paragraph 3 - page 1116, column 1, paragraph 3; figure 3 *	1-10	B64G1/26 G05D1/08
A	WIKTOR P J: "MINIMUM CONTROL AUTHORITY PLOT: A TOOL FOR DESIGNING THRUSTER SYSTEMS" JOURNAL OF GUIDANCE AND CONTROL AND DYNAMICS, AIAA. NEW YORK, US, vol. 17, no. 5, 1 September 1994 (1994-09-01), pages 998-1006, XP000493390 ISSN: 0731-5090 * page 999, column 2, paragraph 2 * * page 999, column 2, last paragraph - page 1000, column 1, paragraph 1 *	1,4,9,10	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B64G G05D
A	WO 98 49058 A (AUF DER HEIDE KOLJA ;DAIMLER BENZ AG (DE); SCHUETTE ANDREAS (DE)) 5 November 1998 (1998-11-05) * column 1, line 15 - column 3, line 19 * * column 4, line 19 - column 5, line 27 * * column 12, line 32 - column 16, line 19 *	1,9,10	
A	US 5 310 143 A (YOCUM JOHN F ET AL) 10 May 1994 (1994-05-10) * column 3, line 29 - column 4, line 59 *	1,5,9,10	
	-/--		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 5 July 2002	Examiner Calvo de Nõ, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.02 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT					
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)		
A -	US 5 130 931 A (PALUSZEK MICHAEL A ET AL) 14 July 1992 (1992-07-14) * abstract * * figure 2 *	1,9,10			
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)		
The present search report has been drawn up for all claims					
Place of search THE HAGUE		Date of completion of the search 5 July 2002	Examiner Calvo de Nõ, R		
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			
X :	particularly relevant if taken alone				
Y :	particularly relevant if combined with another document of the same category				
A :	technological background				
O :	non-written disclosure				
P :	intermediate document				